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PEOPLE'S REPUBLIC OF CHINA SCIENTIFIC ABSTRACTS

No. 173

This serial publication contains abstracts of articles published in selected scientific and technical journals. JPRS is unable to honor requests for original source materials or information as to the availability of full translations of these articles.

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JOURNAL OF BOTANY

AUTHOR: NONE

ORG: Ping-Ku Hsien Institute of Agricultural Science, Peking

TITLE: "High Yield and Low Lodging of Transplanted Wheat by Means of Soil Banking"

SOURCE: Peking CHIH-WU TSA-CHIH (Journal of Botany) in Chinese No 1, Feb 77 pp 17-18

ABSTRACT: In the fall of 1977, an experimental plot of 1.8 mou was used to test the benefit of soil banking to transplanted wheat. The result showed that with soil banking the average yield per mou reached 1,035 chin, 360 chin more than without soil banking, or an increase of yield of 53.3%. The experimental procedure used and the condition of the soil were briefly described. The increase of yield was attributed to : (1) improved soil condition for root systems, (2) low ineffective tillering and high heading percentage, (3) strong stalk and large leaves, (4) long head differentiation period and heavy heads, and (5) improved water-nutrient relationship between soil and wheat. Some existing problems and possible improvements were briefly discussed.

AUTHOR: NONE

ORG: Department of Rice, Institute of Agricultural Science, Hupei

TITLE : "Why Can Rice Seedlings be Raised Without Soil?"

SOURCE: Peking CHIH-WU TSA-CHIH (journal of Botany) in Chinese No 1, Feb 77 pp 22-23, 2

ABSTRACT: Rice seedlings can be raised without soil because all necessary nutrients for the growth of seedlings can be supplied by the endosperm. The characteristics of the soil-less rice seedlings are: (1) well developed root system, (2) highly cold-resistant, (3) fast recovery after transplantation and early tillering, and (4) no damping-off of seedlings. In order to successively raise soil-less rice seedlings, the following steps were recommended: (1) use a well-built green house, (2) select the right variety and carefully treat the seeds before sowing, (3) control the temperature and humidity in the green house, (4) timely tamp the seedbed, and (5) harden the seedlings before transplantation.

AUTHOR: NONE

ORG: Department of Weights and Measures, Peking

TITLE: "Applications of Magnetized Water in Agriculture"

SOURCE: Peking CHIH-WU TSA-CHIH (Journal of Botany) in Chinese No 1, Feb 77
p 26, 28

ABSTRACT: Magnetized water has been applied to seed soaking, seedling raising, and irrigation with good results. With a magnetizing field strength of 2K-3K oersted, the magnetized water increased the yield of rice and wheat by 30% and 20% respectively. Experimental experiences showed that with magnetized water the soil showed very little caking. The development of root systems was therefore enhanced. Magnetized water not only helped to increase the yield of grain crops, it could also increase the yield of vegetable crops such as radish and rape. Additional experiments needed to be carried out before the application of magnetized water could be extended to other agricultural products.

AUTHOR: SU An-jen [5685 1344 0088]

ORG: Huang Chia Chieh Commune, Lo Lin Hsien, Shantung

TITLE: "How to Process Hard Bean Seeds"

SOURCE: Peking CHIH-WU TSA-CHIH (Journal of Botany) in Chinese No 1, Feb 77
pp 27-28

ABSTRACT: Hard bean seeds do not germinate very easily because of an excessive coating of wax existing on the outside of the seed. Some of the factors influencing the formation of this excessive coating of wax are : (1) dry weather during growth, (2) high soil calcium content, and (3) high temperature and low humidity in seed storage. Three methods to process hard seeds are described: (1) mechanical sanding, (2) hot water soaking, and (3) soaking in chemicals such as sulfuric acid and alcohol.

AUTHOR: NONE

ORG: Research and Teaching Section, Soil Chemistry, Central China Academy of Agricultural Science

TITLE: "An Indicator Plant for Soil Phosphorus Content -- Rape"

SOURCE: Peking CHIH-WU TSA-CHIH (Journal of Botany) in Chinese No 1, Feb 77
pp 29-31

ABSTRACT: A lack of phosphorus is indicated by slow growth of plants. From 23 different grain and vegetable crops, the rape seedling was found to be the most effective indicator for determining the quantity of phosphorus present in the soil. The ratio of wet weights of a seedling without phosphorus fertilizer and one with a predetermined amount of phosphorus fertilizer was used as an aid in diagnosing phosphorus deficiencies. The application of this test to the determination of the exact phosphorus requirement of several crops on a particular soil is discussed.

3057

CSO:4009

SCIENTIA SILVAE SINICA

AUTHOR: Tung Hsing [5516 5281]

ORG: T'a-yuan Forestry Station, Bureau of New Forestry Projects, Heilung-
Kiang Province

TITLE: "T'a yuan Forestry Station Adopts Method of Planned Production
for Cutting and Culture"

SOURCE: Peking CHUNG-KUO LIN-YEH K'O-HSUEH [SCIENTIA SILVAE SINICA]
Chinese, No 1, Feb 1977, pp 11-14

ABSTRACT: The T'a-yuan Forestry Station is located on the northern slope of the I-li-hu-li Shan, the highest peak of the Greater Khingan Mountains Ta Hsing-an Ling in Heilungkiang Province. Planned and built in 1965, it began production in 1967. In 1973, its innovative use of an overall method of planned production for timber cutting and tree culture appeared as a new socialist phenomenon on the forestry front of the Cultural Revolution, a revolutionary change in forestry production. The method is based on Chairman Mao's directive on reasonable forest management and timber cutting. Under the unified leadership of the Party, a team is

[continuation of CHUNG-KUO LIN-YEH K'O-HSUEH [SCIENTIA SILVAE SINICA]
Chinese, No 1, Feb 1977, pp 11-14]

responsible for the overall planning and completion of production in three areas: reasonable cutting, reasonable silviculture, and reasonable utilization. This includes preliminary survey of the tree-cut zone and work planning; reasonable timber cutting and storage; actively practicing reforestation and silviculture measures; and reasonable clearing of cut areas and comprehensive utilization of by products. Article spells out details for these measures.

AUTHOR: None

ORG: Chinese Academy of Agricultural and Forestry Sciences, Yen-ling Scientific and Technical Services Unit; and Yen-ling Hsien Institute of Forestry Sciences, Honan Province

TITLE: "The Problem of Farm Lands and Woods [Tree] Dominance and A Solution"

SOURCE: Peking CHUNG-KUO LIN-YEH K'O-HSUEH [SCIENTIA SILVAE SINICA] Chinese, No 1, Feb 1977, pp 25-29

ABSTRACT: The growth rate and requirements of trees for sunlight, water, and nutrients, as well as their needs for more aerial and ground space are greater than those for crops, crops planted close to trees are frequently threatened and their growth and development affected. This competition between croplands and the surrounding trees and woods for the essentials of life where the trees gain the upper hand is referred to as tree dominance. This article is based on surveys made of the North China Plain by the author organizations in which the problem of woods (tree) dominance and ways to overcome it are discussed. The general pattern of woods dominance, the effect of this pattern on the wheat crop

[continuation of CHUNG-KUO LIN-YEH K'O-HSUEH SCIENTIA SILVAE SINICA Chinese, No 1, Feb 1977, pp 25-29]

are covered. The problem-solving experience of the broad masses in actual production throughout the afforestation movement through use of agricultural and forest management techniques such as planned land use, selection of suitable crops and trees for planting, intermittent cutting etc. is discussed. Article also compares the benefits and secondary effects of tree dominance (woods occupying only 4% of the cultivated acreage) in the overall scheme of agricultural development.

AUTHOR: None

ORG: Fan-ch'ang Hsien Forestry Bureau, Anhwei Province; Forest Conservation Unit Anhwei Agricultural College Hsien Branch

TITLE: "Control of Soil Termites in the Forest"

SOURCE: Peking CHUNG-KUO LIN-YEH K'O-HSUEH [SCIENTIA SILVAE SINICA]
Chinese, No 1, Feb 1977, pp 54-59

ABSTRACT: In accordance with Chairman Mao's earlier call to plant trees and make China green, the Fan-Ch'ang Hsien Party Committee had mobilized the local populace in planting large stands of fir and pseudosassafras for which the mild climate, abundant rainfall and hilly terrain were well suited. However, as the firs migrated downward from higher elevations and became established among the lower hilly areas, they incurred severe damage from the resident soil termites, primarily Odontotermes formosanus Shiraki and Macrotermes barneyi Light. Surveys showed 20-30% of firs in the whole district were damaged, this damage reaching 90% in some places. About 10% of the seedlings also died. Damage to the pseudosassafras was also severe-- practically 100% were subject to canker damage. To strengthen and protect the fruits of their afforestation efforts, the

[continuation of CHUNG-KUO LIN-YEH K'O-HSUEH [SCIENTIA SILVAE SINICA]
Chinese, No 1, Feb 1977, pp 54-59]

author organizations conducted several short courses, and initiated a mass movement to combat the termites. Since the winter of 1974, over 781 ant-hills of soil termites have been destroyed. The article analyzes the extent and causes of termite damage in the new forests. It also discusses in detail the life habits and activity patterns of the forest soil termites, and ways to control them (by digging out the ant-hills, smoking out, or introducing chemicals into the ant-hill).

AUTHOR: None

ORG: All-China Research Unit on New Uses for Oak Gum"

TITLE: "Use of Acorn Gum to Prevent and Remove Boiler Scale"

SOURCE: Peking CHUNG-KUO LIN-YEH K'O-HSUEH [SCIENTIA SILVAE SINICA]
Chinese, No 1 Feb 1977, pp 73-76

ABSTRACT: Article describes the innovative use of an acorn gum by Chinese workers in recent years to remove scale and prevent its formation in industrial boilers. This method which is well suited for middle and small size industries, ship operation and everyday use, is simple, economic, and safe. Extracted from the outer shell of the acorn, this gum is rich in tannin content. The acorn tannin is the active ingredient in this scale-removal boiler cleansing operation. The method and its important advantages are discussed in detail.

AUTHOR: None

ORG: T'ai-hu Chemical Engineering Plant, Wusih, Kiangsu Province;
Institute of Forest Product Chemical Industry, Chinese Academy
of Agricultural and Forestry Sciences

TITLE: "Experimental Production of Ethyl Urea Formaldehyde Resin"

SOURCE: Peking CHUNG-KUO LIN-YEH K'O-HSUEH [SCIENTIA SILVAE SINICA]
Chinese, No 1, Feb 1977, pp 77-80

ABSTRACT: The quickened pace in socialist construction in recent years and the increased demand for sandarac varnish as a wood primer and paint solvent have made the search for an economical and high-quality synthetic substitute a must. Article describes the successful experimental production of an ethyl-urea-formaldehyde resin as such a product. Tested at furniture plants in the Wusih area and elsewhere, this resin was found to have good properties--easy application, quick drying, good-sealing, lustrous, hard, and heat tolerant after drying, meeting product specifications. It is also a good thinner--mixes well with other varnishes and lacquers. Moreover, its environmental pollution and capital outlay are low, requiring minimum facilities, as it could be produced in most resin-

[continuation of CHUNG-KUO LIN-YEH K'O-HSUEH [SCIENTIA SILVAE SINICA]
Chinese, No 1, Feb 1977, pp 77-80]

processing or industrial chemical plants. The raw materials are inexpensive and readily available. Article discusses the chemical reaction in manufacture, and the varnishing properties of the new resin in detail.

5292

CSO: 4009

GENETICS AND BREEDING

AUTHOR: None

ORG: Institute of Forestry, Peking Municipal Academy of Agriculture

TITLE: "Resolving the Problem of Sprouting Difficulty of Early Ripening Peach With Embryo Culture Technique"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 6, Nov 76 p 5

ABSTRACT: The developmental process of the embryo of the early ripening peach is relatively short; therefore not much dry material is accumulated in the process. Under normal conditions, the embryo often cannot sprout or the sprouting rate is usually very low. This fact created a difficulty in the effort of cultivating more varieties of early ripening peach. The authors adopted an embryo culture technique to supplement nutrients artificially and obtained a 60% sprouting rate. With this technique, the fruit should be harvested when it is about 70 to 80% ripe. It should be wrapped with paper and placed under low temperatures of 2-5°C to be kept for more than 60-70 days. The embryo is then taken out in an aseptic procedure to be cultured in a test tube filled with a culture medium. When 4-6 true leaves have appeared, the seedling is transplanted to a pot of sterilized soil. The contents of the culture medium and the complete procedure of sprouting the embryo are described.

AUTHOR: None

ORG: Crop Group, Hunan Academy of Agriculture

TITLE: "Research on Hereditary Regularities of Paddy Rice During the Growth and Developmental Period"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 6, Nov 76 pp 8-9

ABSTRACT: From 1973 to 1975, a project of crossing Philippine rice IR₂₂ and IR₂₄ with some native early varieties was carried out. Hybrids were obtained in March 1973 in Hai-nan Island and were planted in April in Ch'ang-sha of Hunan. It appeared that the F₁ inherited the light sensitivity characteristic of IR₂₂ and the temperature sensitivity characteristic of the Hunan variety. In general, the growth period of F₁ was longer than the parent-pair. Among the F₂ offsprings, some developed heads as early as the middle to late June with spikes and grains similar to IR₂₂. The segregation phenomenon appeared to continue among the F₃, with the duration of the growth period varying as many as 10 to 20 days. Offsprings of various groupings with IR₂₄ expressed similar tendencies.

AUTHOR: None

ORG: The 402 Group, Institute of Genetics, Chinese Academy of Sciences

TITLE: "Research on the Heredity of Protein Contents of Parents and F₁ Hybrids of Kaoliang"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 6, Nov 76 pp 11-13

ABSTRACT: In recent years, kaoliang hybrids have been extended over large acreages to result in obvious increases of total and unit yield of kaoliang in China. Although the hybrids are welcomed by the poor and middle farmers, there remain the problem of poor quality. The tannin content of the seed coat and the keratic rate of the endosperm cause the hybrids to be not very tasty; on the other hand, the nutritional value of the hybrids is also in doubt. Judging from the results of analyses, for example, Chin-tsa No5 has a tannin content of more than 0.5% while its protein content is only about 7%. The quality of kaoliang hybrids has, therefore, become an urgent problem to be resolved. The authors began to study the effects of the protein contents of the parents on the protein contents of the F₁ offsprings of kaoliang in 1974. The results of the study are reported. This paper is to be continued.

AUTHOR: None

ORG: The 102 Group, Institute of Genetics, Chinese Academy of Sciences

TITLE: "Diagnosis of Hereditary Diseases Before Birth"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 6, No 76 pp 22, 31

ABSTRACT: Currently, more than 1600 types of hereditary diseases have been discovered. About 25% of all diseases are estimated to be related to heredity. There are 3 types: diseases caused by single gene anomaly, multiple gene anomalies, and chromosome anomalies. Although in some cases, such as congenital heart defects, corrective surgery is possible, incidence of similar defects remains higher among the offsprings of those who have had corrective surgery. The key to reducing hereditary diseases is in prevention. The effective measure is to diagnose such diseases before the infant is born. Pregnant women over 40 years of age, of known familial chromosome anomalies, having had previous birth of chromosome defective child, or having suffered from massive chemical or radiation damage, or severe viral infection should be singled out for intra-uterine diagnosis [amniocentesis.] The technique is explained. This paper is not yet complete. It is to be continued.

AUTHOR: None

ORG: Poly I:C Experimental Manufacture Cooperative Group of Tientsin Mono-sodium Glutamate Plant and Institute of Genetics, Chinese Academy of Sciences

TITLE: "A Discussion on Interferon"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 6, Nov 76 pp 23-24

ABSTRACT: The discovery and application of sulfa drugs and antibiotics have caused a large number of bacterial diseases to be easily cured but these drugs are powerless against virus. There has been no effective measure against viral infection until the discovery of interferon and its inducers. Extracting interferon from virus-infected cells involves many difficulties, however. The emphasis has, therefore, been to produce some polynucleotides from synthesized plastics or artificial synthesis that are capable of inducing cells to produce interferons [i.e. intrinsic instead of extrinsic interferons.] Not very many of these inducers are promising, however. The one deemed to be most valuable is poly I:C. The authors made an injectio of poly I:C and distributed it to some hospitals in Peking and Tientsin for clinical experimentation. The data of more than 150 cases obtained in the past few years indicate that it is a promising antiviral and antitumor drug. Extended clinical tests are being carried out. This paper includes an explanation of the production of interferon by the cells and its antiviral function.

AUTHOR: None

ORG: Survey Group, Kuangtung Provincial Academy of Agricultural Sciences

TITLE: "Progress in China's Crop Breeding With Reference to Propagating and Breeding in the South"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 pp 2-3

ABSTRACT: The second largest island in China, Hai-nan Island, is green in all 4 seasons. It is now known as the natural greehouse, with more than 18,000 workers, poor and middle farmers, leaders and technicians of research agencies, and teachers and students of colleges and special schools coming from all 27 provinces and municipalities every year to devote to crop breeding in the over 120 thousand mu of crop breeding fields of the island. Most of the acreage is used for breeding paddy rice, with emphasis on heterosis utilization; the remaining is used for breeding such upland grains as wheat, corn, and kaoliang, and such economic crops as cotton. The current achievements in heterosis utilization of paddy rice, distant hybridization between wheat and rye, wheat and barley, rape and white cabbage, bamboo and rice, wheat and Pisum sativum, sugar cane, and kaoliang, etc., haploid breeding and cell fusion hybridization, and breeding for physiological and biochemical efficiency are briefly reported.

AUTHOR: None

ORG: Hunan Provincial Paddy Rice Heterosis Utilization Cooperative Group

TITLE: "Introducing Some Superior Groups of Hybrid Paddy Rice"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 p 8

ABSTRACT: The properties, advantages, and disadvantages of six hybrid paddy rice systems are described, including Nan-yu No 2 and No 3, Shan-yu No 2 and No 3, Ai-yu No 2 and No 3, Nan-yu No 6, Wei-yu No 3, and Ch'ang-yu No 3. All are used in Hunan Province.

AUTHOR: None

ORG: Hua-t'ing Superior Varieties Propagation and Breeding Farm, Chia-ting-hsien, Shanghai Municipality; Shanghai Photo Instrument Research Center, Chinese Academy of Sciences; Photosynthesis Laboratory, Shanghai Institute of Plant Physiology

TITLE: "Selective Breeding of Early Rice With Laser"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 pp 9, 29

ABSTRACT: Chi-kuang-tsao is a new cultivar of medium early ripening hsien rice, obtained from selective breeding of upland planted Kuang-lu-ai No 4 after irradiated with N_2 laser. 6,180 seeds of that variety were treated in 17 different ways with 7 types of laser to obtain 4,356 plants. Of these two mutants were discovered: one ripened 7 days earlier and the other had extremely large grains. Following harvest, they were sent to Nan-ning of Kuangsi for certification. The latter was discarded in the process and the former proved to be worthy of continuous cultivation. While the yield is comparable with Kuang-lu-ai No 4, it ripens 10 days earlier in Kuangsi and 8 days earlier in Hai-nan Island. The characteristics of this new breed are described.

AUTHOR: None

ORG: Wheat Heterosis Utilization and Seed Cultivation Cooperative Group of Chekiang Province

TITLE: "Report of Wheat Chemical Detasseling Research"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 pp 10, 14

ABSTRACT: Since 1972, chemical detasseling agents have been studied and experimented in Chekiang Province. Tentatively, the group has concluded that ethylin (2-chloro-ethyl phosphonic acid) is an effective chemical detasseling agent for wheat. Its 40% water solution has the advantage of being easily available, harmless to men and animals, and stable efficiency. The effects of this chemical on ten different varieties of wheat, in different regions, and in the 4 years of 1973-1976 are compared.

AUTHOR: None

ORG: 402 Group, Institute of Genetics, Chinese Academy of Sciences

TITLE: "Genetic Study on Major Cropping Characteristics of Hybrid Kaoliang"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 pp 20-23

ABSTRACT: Having reported the research data of protein contents of hybrid kaoliang [grain sorghum] in the previous issue of I-CH'UAN YU YU-CHUNG, the authors continue to discuss the major cropping characteristics of hybrid kaoliang. In separate sections, this paper discusses the growth period from sprouting to blooming, the weight of grains of a single stalk, the grain test weight, the color of the grain, the type of endosperm, and the height of the stalk. This paper is to be continued.

AUTHOR: None

ORG: Hsin-hsien District Institute of Agricultural Sciences, Shansi Province

TITLE: "White-Grain Hybrid Kaoliang of Superior Quality"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 p 24

ABSTRACT: This paper reports that a white grain hybrid kaoliang and its sterile and recovery systems have been successfully bred out by the institute. Its yield is higher than the hybrid kaoliang currently being extended. It has no bitter taste. Its flour is white-colored and of very good quality. The hybridization process of its three systems and the problems to be emphasized with respect to its extension are briefly discussed.

AUTHOR: None

ORG: Kaoliang-rice Selective Breeding Team, Hupei Provincial Institute of Agricultural Sciences

TITLE: "Selective Breeding of Kaoliang-rice (A Type)"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 pp 25, 27

ABSTRACT: Starting in 1971, the team has been engaged in the work of distant sexual hybridization of kaoliang and rice. After 5 years of continuous selection and breeding, the preliminary product, a new late No rice -- the kaoliang-rice (A type) is basically stabilized. The basic characteristics of paddy rice (the mother) are retained while the characteristics of kaoliang (the father), including large spikes, numerous grains, lodging-resistance, and cold-resistance are also manifested. Under good cultivation conditions, this variety can yield 800-1,000 chin/mu. Experimental cropping outside of the province of Hupei has begun. The paper includes a photo of its spike, another of the different forms of spikes of the F₂ generation, and tables describing the major economic and morphological characteristics of this variety.

AUTHOR: None

ORG: Ts'ang-chou District Institute of Agricultural Sciences, Hopei Province

TITLE: "Mutants of Distant Hybridization of Millet and Kaoliang"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 p 26

ABSTRACT: The institute began the project of inter-genera distant hybridization of millet and kaoliang in 1972. Two cultivars of millet were used as maters and two cultivars of kaoliang were used as paters. Mutant characteristics of the progenies of F₁, F₂, F₃, and F₄ are described. The hybridization procedure is also given.

AUTHOR: None

ORG: Kao-tzu Silkworm Seed Farm, Tan-t'u-hsien, Kiangsu Province

TITLE: "Selective Breeding of New Hybrid Groupings of Domestic Silkworms"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 pp 33-34

ABSTRACT: During the cultural revolution, the masses of the workers criticized the attitude of the silkworm seed farm for its mistake of limiting itself to propagation without any attempt to breed selectively. Since then, breeding projects have been carried out at the farm. In 1970, 2 new varieties of Kiangsu-ts'an No 1 and Kiangsu-ts'an No 2 were bred out. They have been extended throughout the province. Since 1970, extensive experiments have also been carried out to cross the hybrids, systematically bred since the spring of 1967, with the 2 new varieties. Qualities of the various hybrid groupings are compared in the paper.

AUTHOR: None

ORG: Bureau of Seeds, Ministry of Agriculture and Forestry

TITLE: "Successful Experiment With Short Daylight Exposure To Produce Seeds of Red Flax"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 p 14

ABSTRACT: In order to be self-reliant in the supply of raw materials, the southern varieties of flax must be introduced and cultivated in the north. The red flax is a short daylight exposure plant. Under the long daylight condition of the north, it grows extremely well, with very obvious yield increase, but it cannot bloom to produce seeds. The 2 provinces of Kuangtung and Kuangsi were required to supply 10 million chin of seeds of red flax every year. In order to resolve this problem, the Hunan Institute of Flax assisted Shantung Province in an experiment of using short daylight treatment to cause varieties of red flax to bloom and fruit in the north. During the seedling stage, plants are allowed 10 hours of daylight only. They are shaded from light the rest of the day. After continuous treatment of 30-40 days, the growth of the stems is controlled and the plant blooms and produces

[continuation of I-CH'UAN YU YU-CHUNG No 1, Jan 77]

seeds. In 1976, this technique was adopted by 508 brigades and farms of Shantung, and yields of 100-253 chin of seeds per mu were obtained. This year, Shantung Province has plans of producing seeds of red flax in 20,000 mu of seed beds with this technique.

AUTHOR: None

ORG: Bureau of Seeds, Ministry of Agriculture and Forestry

TITLE: "Sweet Hybrid Kaoliang is a Sugar as Well as a Grain Crop"

SOURCE: Peking I-CH'UAN YU YU-CHUNG [GENETICS AND BREEDING] in Chinese No 1, Jan 77 p 31

ABSTRACT: In 1975, 3 systems of sweet hybrid kaoliang were introduced to China from a foreign country. They were cultivated and bred in Hai-nan Island to produce Sweet Hybrid No 1, which was distributed to Chu-ch'eng of Shantung and Shang-ch'iu and K'ai-feng of Honan, etc. for experimental cropping. In Shantung, it yielded 700 chin of kaoliang and 300 chin of low density sugar per mu. In Shansi, the yield was 700 chin of kaoliang and 300 chin of low density sugar per mu, with a previous crop of wheat yielding more than 800 chin/mu. The growth period of Sweet Hybrid No 1 is about 130 days. It may be planted either in the spring or in the summer. The average yield should be 500-600 chin/mu of grain. The stems contain about 14% of soluble solid material. A yield of 4 to 5 thousand chin/mu of stem can be cooked to produce low density sugar weighing 3 to 4 hundred chin. This sugar is suitable for making cakes and candy as it is. The technique of using it to make crystallized sugar is being experimented by some agencies.

6168

CSO: 4009

CHINESE MEDICAL JOURNAL

AUTHOR: None

ORG: Peking Battery Plant

TITLE: "Technical Reform to Eliminate Mercury Pollution"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 2, 15 Feb 77 p 72

ABSTRACT: In the past, the battery production process of the plant called for the use of mercury bichloride to make the starch paper which separated the positive and negative electrodes; when the paper was being dried in the oven, a large quantity of mercury vapor polluted the air of the shop and its nearby environment. After careful research, the work procedure was changed. Now, the electrolyte containing a small amount of mercury is painted on after the paper has been dried; the paper is then used immediately so that mercury is no longer needed to prevent mold during prolonged storage. Mercury is also no longer used to polish the zinc plate. A polishing machine has been designed and made to accomplish the procedure mechanically. The machine has a vacuum attachment to reclaim the zinc dust and to prevent zinc dust pollution as well.

AUTHOR: None

ORG: Spray Paint Group, Knife and Scissors Plant, Hsin-hai Farm, Ch'ung-ming-hsien, Shanghai Municipality

TITLE: "Rely Upon Themselves to Eliminate Benzene Pollution"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 2, 15 Feb 77 p 72

ABSTRACT: The spray paint shop was located in an old dining hall and an old exhaust fan was all it had to remove the benzene gas, and the health of the workers was unfavorably affected. Under the concern of the party branch, the workers of the spray paint group were organized to design and build by themselves a small spray paint room with an underground exhaust system, and air intakes on the roof and the side. In this manner, the air flows away from the worker when he operates the paint sprayer. The underground vacuum brings the harmful gas and dust through a pond of water to be filtered out.

AUTHOR: None

ORG: Kuangtung Provincial Occupational Diseases Prevention and Treatment Center; Ch'ao-chou-chen Public Health and Epidemic Prevention Station; Ch'ao-an Plastics Plant

TITLE: "Utilize Sealed Exhaust Hood to Ventilate and Eliminate Poison"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 73

ABSTRACT: Ch'ao-an Plastics Plant produces primarily sandals made entirely of polyvinyl chloride. During the production process, the materials have to be heated 2 or 3 times under temperatures of 180-195°C, and the dissolution of the plasticizer and some resin gives out a large quantity of gases which are harmful to the respiratory system of the workers. Throughout the years, several forms of hoods had been tried without much effect. It was not until the summer of 1975 that a sealed exhaust hood was designed and installed. It can now effectively eliminate all the harmful gases from the shop. Specifications of the hood are described with a drawing.

AUTHOR: None

ORG: Chin-hua Dyestuff Chemical Engineering Plant, Chekiang Province

TITLE: "Harmful Water Changed Into Beneficial Water"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 73

ABSTRACT: In the past, in the process of producing sulfide blue, soda ash was used to neutralize to cause the waste water of the plant to contain a large quantity of sodium sulfate and sodium carbonate, while the nitrosation process caused the waste water to contain sodium nitrate, a small amount of organic matter, and about 2.8% of residual acid. This waste water had been discharged into the nearby lakes to cause the death of fish, and crops, and to endanger the drinking water supply of the community. An attempt was made to filter the waste water with sand but several tens of tons of waste water per day was just too much to filter. After research and study, the plant now uses industrial aqua ammonia instead of pure soda. When the waste water of the neutralization process is mixed with the waste water of the nitrosation process, ammonium sulfate is produced. The waste water is thus turned into fertile water to be used as such by the farmers.

AUTHOR: None

ORG: Shantung Provincial Institute of Medicine; Tientsin Municipal Occupational Diseases Prevention and Treatment Hospital; Peking Municipal Chishui-t'an Hospital

TITLE: "Prevention and Treatment Of Hydrofluoric Acid Burns"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 74-76

ABSTRACT: With the rapid development of electronic and petroleum industries in China, the production and utilization of hydrofluoric acid grow daily, so are cases of chemical burns caused by accidents involving this acid. Hydrofluoric acid can penetrate through stratum corneum to reach the deep tissues, which will be quickly destroyed by the fluorine ions to create necrosis. The clinical manifestations and local and general treatment measures are described. This paper is the result of combining 3 manuscripts submitted separately by the organizations listed above.

AUTHOR: None

ORG: Labor Health and Occupational Diseases Teaching and Research Group, Department of Public Health, Szechwan College of Medicine; Chengtu Municipal Third Workers' Hospital

TITLE: "Mercury Elimination Effects of Sodium Dihyrosulfuryl Propylsulfonate and Sodium Dihydrosulfuryl Succinate Compared"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 77-78

ABSTRACT: Of the two drugs given in the title, the authors normally use the former to treat mercury poison and the latter is used only when the former happens not to be available. The impression has always been that the latter is less satisfactory. A test was finally conducted in 4 groups of workers having had contacts with metallic mercury vapor. When the results of urine mercury density were compared, they left no doubt that the former is decidedly more effective for driving out mercury.

AUTHOR: None

ORG: Ophthalmological Hospital, Chung-shan College of Medicine

TITLE: "Preservation of Cornea With Anhydrous Calcium Chloride Drying Technique"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 78

ABSTRACT: In order to facilitate the extension of corneal transplant technique, the Ophthalmological Hospital began to experiment with the technique of using anhydrous calcium chloride to dry and preserve corneas in December 1972. Following animal experimentation, the technique has been applied clinically with satisfactory results. This paper reports the preparation of the required tools, including the storage jar and the drying device, the selection and treatment of corneas, and the results of histological and clinical observation of the products.

AUTHOR: None

ORG: Hsu-chou Municipal Public Health and Epidemic Prevention Station; Ch'uan-t'ao Coal Mine, Hsu-chou Bureau of Mines; Hsu-chou College of Medicine

TITLE: "Experimental Research and Manufacture of Air-Water Dust Settling Device"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 79-80

ABSTRACT: In the explosion process of coal mining, a large quantity of powdery dust and injurious gas is created to damage the health of the workers. In recent years, measures such as wet mud bomb and increased ventilation had been adopted, but the effects remained insignificant; while the increased ventilation caused the poisonous gas to spread to nearby residential areas. For the purpose of resolving the problem, after repeated experimentation, the authors made the air-water dust settling device. The theory is to mix air [wind] and water in pipes before the mixture is ejected out with high pressure in the form of conical mist which filters the dust and poisonous gas and causes them to be wet and settle down. The structure of the device is described with a drawing; its technical properties and effectiveness are reported.

AUTHOR: None

ORG: Shao-nien-hung Cooperative Group Pharmacology Team

TITLE: "Improved PCA Test Method and PCA Reaction Suppressing Action of Shao-nien-hung"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 81-84

ABSTRACT: PCA is one of the animal test models commonly used in foreign countries in recent years to determine immediate hypersensitive reaction. In foreign countries, nematode parasite (*Nippostrongylus brasiliensis*) infected rodents are often used to obtain serum IgE for the test. The authors experimented with the method of adding aluminum hydroxide gel to *Trichosanthes kirilowii* Maxim to form the antigen for raising the level of IgE in rabbits and guinea pigs to proceed with PCA tests. This paper reports the establishment of this test method, and the PCA reaction suppressing action of disodium chromoglycate and the saponin of Shao-nien-hung (*Ardisia alyxiacfolia* Tsiang.) The former is a new asthma drug. The latter is a folk asthma herb of Northern Kuangsi. Clinical and experimental research has proved that the effective element is its saponin, which is highly toxic, but the toxicity of its acetylated and hydrolytic product is much less.

AUTHOR: CH'EN Ti-hua [7115 2769 5478]

ORG: Radiology Department, Hai-k'ou Municipal People's Hospital, Kuangtung

TITLE: "One Case of Congenital Cyst of the Lung"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 84

ABSTRACT: The 18 year old male complained of pain in the left chest following a respiratory infection, and x-ray revealed a 3.2 x 2.8 cm tumor on the left lung. Surgery removed a thin-walled smooth cyst of a diameter of 5 cm. The patient recovered completely. X-ray photos are included.

AUTHOR: CHU Hsi-hsing [2612 4406 2502]
WANG Te-chao [3769 1795 2507]
WANG Kung-hsien [3769 1872 2009]
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WANG Chu [3769 2612]
HU Kuo-hsien [5170 0948 6343]
TENG Hsueh-chia [6772 1331 4471]

ORG: All of Hua-shan Hospital, Shanghai First College of Medicine

TITLE: "Clinical and Pathological Analyses of 23 Cases of Primary Hyperparathyroidism"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 85-89

ABSTRACT: In recent years, an increase in incidences of mild primary hyperthyroidism with lithiasis of the urinary tract as the major manifestation has been discovered. The pathological data of 23 cases treated with surgery at the hospital in the past decade (1964-74) are analyzed. It is believed that a combined observation of blood calcium, phosphorus, AKP, and urine calcium is rather significant for diagnosis. In those cases of relatively mild biochemical changes, parathyroid function tests are definitely helpful.

AUTHOR: CHIN Hui [6855 6540]

ORG: The 171 Hospital of Chinese People's Liberation Army

TITLE: "Acute Dimethyl Benzene Poison"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 89

ABSTRACT: In January 1975, 12 soldiers of a certain troop suffered from dimethyl benzene poison after they painted the cabin of boats without sufficient ventilation. Of these, four were mild and eight were severe cases. Aside from one case of residual psychotic symptoms which did not disappear until six months later, the toxic symptoms of all remaining cases were cured completely after treatment within 5-10 days.

AUTHOR: None

ORG: Internal Secretion Group of Department of Internal Medicine, Department of Radiology, and Department of External Medicine of Tientsin College of Medicine Hospital; Pathology and Anatomy Teaching and Research Group, Tientsin College of Medicine

TITLE: "Primary Hyperparathyroidism : Report of 13 Cases of Surgical Excision of Parathyroid Adenoma"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 90-93

ABSTRACT: If primary hyperparathyroidism is not effectively treated for a prolonged period of time irreparable deformity of the bone or damage to kidney tissues may occur. Of the 13 cases reported in the paper, positive diagnosis was obtained after symptoms of the disease had appeared for 7 months to 12 years (an average of 5 years.) It may be said that the diagnostic level for this disease remains unsatisfactory. Reports of foreign countries appear to be the same. Pathological and clinical data are analyzed, with a description of the treatment procedures.

AUTHOR: WANG Chung-wen [3769 0112 2429]

ORG: Pharmaceutical Department, Huang-shih Municipal Fourth Hospital, Hupei

TITLE: "How to Prevent Charcoal Grains From Appearing in Infusion Fluids"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 93

ABSTRACT: In preparing glucose or other fluids for infusion, a proper amount of activated charcoal is often added to absorb the colloid, pigment, and source of heat of the raw materials, and due to poor filtering process or other reasons, grains of charcoal may appear in the fluid to affect its quality. Four techniques of preventing this problem are described in the paper.

AUTHOR: SUN Yu-sheng [1327 2589 5116]
YEN Tung-fang [0917 2639 2455]
CHU Lung-hsiang [2612 7893 7534]

ORG: All of Department of Osteopathy, Ch'ang-chou Municipal First People's Hospital, Kiangsu

TITLE: "Clinical Report of 40 Cases of Ruptured Achillis Tendon"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 94-96

ABSTRACT: Rupture of the Achillis tendon is a common trauma among the working people. If the treatment is not proper, serious impairment of the function of the lower limbs may result. The cases reported in the paper are classified into 10 cases of closed rupture and 30 cases of open rupture. The problem of early diagnosis, the technique of repairing with splints, the technique of surgical treatment, and the results of treatment with follow-ups between 6 months and 8 years are discussed.

AUTHOR: None

ORG: None

TITLE: "Prevention and Treatment of Toxic Side Effects of Streptomycin With Ku-sui-pu [Davallia bullata]"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 96

ABSTRACT: According to reports of the 254 Hospital of the Chinese People's Liberation Army, a decoctum of Davallia bullata (5 ch'ien daily) was used to treat 55 cases of toxic reactions to streptomycin. The symptoms included nausea, tinnitus, ear-ache, numbness of lips and face, deafness, etc. The effective rate was 85%, i.e. the reaction was obviously lessened and the streptomycin treatment continued to completion without disabling side-effects.

AUTHOR: None

ORG: Department of Urology, Department of Anesthetics, Shanghai Municipal First People's Hospital

TITLE: "Acupuncture Anesthesia for Prostatectomy"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 97-98

ABSTRACT: From February 1966 to June 1974, 62 cases of prostatectomy were performed under acupuncture anesthesia. All of these were cases of hyperplasia of the prostate, with 12 cases of concurrent cystolithiasis. Surgery was performed for 41 of these as an emergency measure to relieve acute retention of urine. The age of the patients varied from 54 to 88. The largest prostate weighed 140 g after it was removed. These cases proved the advantage of acupuncture anesthesia for prostatectomy. Currently, acupuncture anesthesia is considered to be the routine method for prostatectomy at the Shanghai Municipal First People's Hospital.

AUTHOR: None

ORG: Department of External Medicine, Capital Hospital, Chinese Academy of Medical Sciences

TITLE: "Technique of Supramesocolic and Submesocolic Venous Shunts"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 99-101

ABSTRACT: During the period of 1964-1973, 24 cases of supramesocolic and submesocolic venous shunts were performed. The surgical techniques and the clinical treatment effects are discussed. Of the group, 10 were emergency cases, which included 5 fatalities. It appears that the success of this treatment technique is related to the liver function before the surgery is performed.

AUTHOR: None

ORG: Department of Internal Medicine, Department of Pediatric Internal Medicine, Department of Physical Examinations, Jui-chin Hospital, Shanghai Second College of Medicine

TITLE: "Clinical Analyses of 97 Cases of Hemorrhagic Diseases due to Hemophilia"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 102-105

ABSTRACT: Of the cases of hemophilia-related cases of hemorrhage treated at the hospital from 1954 to 1975, the data of 97 such cases are relatively complete. Of the group, 74 cases (73.6%) were hemophilia A, i.e. AHG or the VIII factor deficiency, and 23 cases (23.7%) were hemophilia B, i.e. PTG or the IX factor deficiency. There had been no case of hemophilia C, i.e. PTA or the XI factor deficiency. Three of the hemophilia A cases were diagnosed as tuberculosis of the knee joint, acute appendicitis, and deformed antibrachium and two cases of hemophilia B were diagnosed as tuberculosis of the knee joint. Surgery was performed for three of these and very critical hemorrhage resulted. Lessons learned from these mistaken diagnoses and problems of treatment for hemophilia-related hemorrhage are discussed. A drug made from the skin of peanuts was used for 25 of the group and a definite hemostatic effect was obtained.

AUTHOR: None

ORG: None

TITLE: "Pillula Coronary Su-ho"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 105

ABSTRACT: Pillula Coronary Su-ho is a new drug made from an improved version of the classic prescription for Su-ho-hsiang [Liquidambar orientalis Mill.] pills. This new drug is effective for angina pectoris caused by coronary disease or rheumatic heart disease. As an experiment, Shanghai Hua-shan Hospital tried it to treat 43 cases of angina pectoris (1 pill daily for 1-2 weeks); the effective rate was as high as 93%. The action for relieving the pain of angina pectoris was felt by the patients 15-30 minutes after the pill was ingested.

AUTHOR: None

ORG: None

TITLE: "Chang-liu-Chien [Lauric Alkaloid] Hydrobromate"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 2, 15 Feb 77 p 105

ABSTRACT: Chang-liu-chien hydrobromate is the hydrobromic salt of a new alkaloid extracted from *Hyoscyamus tanguticum* of the Solanaceae Family. It is not as toxic as other anticholinergics such as atropine. Acute toxicity tests proved that its half lethal dose is 4-6 times greater. Subacute toxicity tests indicated no obvious effects on the blood, the liver function, or the kidney function and obvious histological changes of the internal organs were not observed either. It can counteract organic phosphorus poison, relieve vascular spasm, and improve micro-circulation. It should be prohibited in cases of hemorrhagic diseases, acute state of cerebral hemorrhage, and glaucoma; it may be used with extreme caution for those suffering from severe cardiasthenia or cardiac arrhythmia.

AUTHOR: KUO Yun-keng [6751 0061 6342]
CHOU Ta-mei [0719 1129 5019]

ORG: Both of Department of Internal Medicine, Ning-te District First Hospital, Fukien

TITLE: "A Simple and Practical Electrocardiographic Connection (Clinical Application of ABG Connection) II. Left Ventricular and Bi-ventricular Hypertrophy"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 2, 15 Feb 77 pp 106-109

ABSTRACT: ABG connection is a simple and practical electrocardiographic connection system. The technique of installing the electrodes, the normal values, and the diagnostic standards for ventricular hypertrophy and right ventricular hypertrophy were reported in CHUNG-HUA I-HSUEH TSA-CHIH before (Vol 55 1975 p 169.) This paper reports the diagnosis of left ventricular and bi-ventricular hypertrophy with ABG connection electrocardiographs.

AUTHOR: None

ORG: Tumor Group, Obstetric and Gynecological Hospital, Shanghai First College of Medicine

TITLE: "Surgical Treatment for Cancer of the Uterine Cervix"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 110-114

ABSTRACT: From 1953 to 1967, 791 cases of early stage cancer of the uterine cervix were treated with surgery. Follow-ups had been continued until the end of December 1972. The five-year survival rate of the group was 97.22% and the ten-year survival rate was 93.55%. The clinical, pathological, and surgical data as well as the follow-up data are analyzed and discussed.

AUTHOR: None

ORG: None

TITLE: "A New Antimalarial Drug -- Piperquini Phosphas"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 114

ABSTRACT: The action of Piperquini phosphas is similar to chloroquinum phosphate. After it is ingested orally, it is stored in the liver which releases it slowly into the blood stream. For treatment, it is comparable to chloroquinum but the new drug is primarily used for malaria prevention. It can reduce the incidence of malaria and is also rather effective for preventing malignant or tertian malaria. It is also used to control the clinical symptoms of malignant or tertian or mixed type malarial cases. The method of applying the drug and side effects are given.

AUTHOR: None

ORG: None

TITLE: "Complex She-mei Preparation (Three-snake-Plant Preparation)"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 114

ABSTRACT: This drug is in a syrup form made from the three snake herbs of Chinese traditional medicine: She-mei [Duchesnea indica (Andr.) Focke.], She-liu-ku [Agrimonia viscidula Bge.] and Pai-hua She-she-ts'ao [Oldenlandia diffusa (Willd.) Roxb.] The syrup is highly effective for the treatment of various types of lupus and can improve such symptoms as fever, joint pain, edema, and absence of appetite. It can also reduce the symptoms of chronic nephritis, guttate scleroderma, and rheumatoid diseases. This syrup may be administered with a small dose of hormone such as cortison. Clinical application of the drug was carried out in the 85 Hospital of the Chinese People's Liberation Army and Shanghai Municipal Hua-shan Hospital with satisfactory results.

AUTHOR: TS'AO Lai-pin [2580 0171 6333]
TS'UI Yu-chen [1508 3768 3791]
WEI Chao-chung [7614 0340 1813]

ORG: TS'AO of Radiology Teaching and Research Group, Tsingtao College of Medicine; TS'UI, WEI of Tsingtao Municipal Epidemic Prevention Station

TITLE: "X-Ray Analysis of Changes of Bone Joints in Submerged Decompression Disease"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 115-117

ABSTRACT: Submerged decompression is an occupational disease caused by rapid decompression as the patient returns from a high pressure environment to one of normal pressure. The disease is so named because when the human body is submerged in water, the ambient pressure is increased 1 atmos for every 10 m of depth. Due to the fact that the pressure inside and outside of the diving gear must be equal, the air breathed into the lungs is high pressured air and various gases are dissolved and absorbed by tissues and body fluids. A sudden return to normal pressure causes these gases to expand rapidly and the lungs will not have enough time to release them. These gases, primarily nitrogen, will be retained in the blood and tissues like air bubbles. Clinical manifestations of 24 such cases and the x-ray pictures of knee, elbow, etc. of these patients are discussed.

AUTHOR: None

ORG: Department of Dermatoses, Nan-k'ai Hospital, Tientsin Municipality

TITLE: "Treatment of Thyroglossal Fistula With Trichloroacetic Acid Injection Technique"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 117

ABSTRACT: Thyroglossal fistula may be formed as a result of incomplete congenital development. In the past, surgical correction was usually adopted. Since 1973, the department has tried the trichloroacetic acid injection technique to treat this condition. Aside from one case, the wound of which took 15 days to heal, the four remaining cases were cured in 1-2 days after injection. The technique is briefly described.

AUTHOR: WANG Ping-chang [3769 3521 4545]

ORG: Hopei Provincial Institute of Medical Sciences

TITLE: "Concerning Problems of Recognition and Nomenclature in 'Respiratory Distress Syndrome'"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 118-119

ABSTRACT: Failure of respiratory function often accompanies shock, severe trauma, infection, allergic reaction, cranial diseases, massive blood transfusion, malignancy, poisonous gas inhalation, etc. Due to the fact that the pathological and clinical characteristics of this condition are similar to infant idiopathic respiratory difficulty, it is called 'acute respiratory distress syndrome' here and abroad. The common pathogenetic mechanism of this condition, regardless of the difference in the immediate cause, is an acute circulatory impairment of the lung, however. This is a new concept proposed on the basis of successful rescue from shock through the use of cholinergic nerve inhibitors and results of experimental research. The subject matter is discussed briefly in the paper as a reminder of the importance in paying attention to the experience of Chinese medical workers. In the interest of truly reflecting dialectic materialism, the name 'acute impairment of pulmonary circulation type respiratory failure' is proposed for this condition.

AUTHOR: IO Wen [5012 2429]
WU Mei-yun [0702 2734 4596]

ORG: Both of Teaching and Research Group of Pathology, Szechwan College of Medicine

TITLE: "Determination of α_1 - Antitrypsin, A_1AT in the Liver Cells of Pulmonary Emphysema"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 119

ABSTRACT: During the past decade, it was discovered that lobular emphysema in adults and children is related to the reduction or deficiency of A_1AT in the blood. It was suggested that A_1AT is perhaps a synthesis product of liver cells. Later, it was discovered that as A_1AT decreases in the blood of the patient, the density of A_1AT in his liver tissues rises instead (SCIENCE Vol 175 No 63, 1972.) This paper reports the examination of the liver cells of 13 patients died of pulmonary emphysema and those of a control group of 20 patients died of other causes. Under electron microscope, PAS positive globoids, with identical antigenic characteristics as A_1AT , were identified, in large quantities at times, in all 13 while in the control group the globoids were present in 7 only out of the 20 cases. Recently, with acetate film electrophoresis technique, a reduction of α_1 globulin in the serum of emphysema patients was also discovered.

[continuation of CHUNG-HUA I-HSUEH TSA-CHIH No 2, 1977 p 119]

On the basis of these experimental results, the authors believe, tentatively, that in the Chengtu region, the genetic mechanism of pulmonary emphysema is very possibly related to a deficiency or reduction of A_1AT . The authors also suggest that in the process of searching for ways of preventing and treating pulmonary emphysema, the hereditary factor is worthy of attention and further study.

AUTHOR: LI Hui [2621 1741]
CH'EN Te-chiang [7115 1795 1730]

ORG: Both of Ts'ung-hua-hsien People's Hospital, Kuangtung

TITLE: "Understanding in Not Using Urinary Catheter Following Cystolithotomy"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 2, 15 Feb 77 pp 120-121

ABSTRACT: From January 1963 to December 1975, 302 cases of cystolithotomy have been performed in the hospital. Cystolithiasis is a common disease in Ts'ung-hua-hsien and most cases require surgery. For the purpose of minimizing suffering, urinary catheter was not used in 266 cases of the group. These cases are reviewed and the special surgical procedure described.

AUTHOR: None

ORG: Department of Dermatoses, Nan-k'ai Hospital, Tientsin Municipality

TITLE: "Treatment of Carbunculoses With Primarily Goose-plus Pulvis"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 2, 15 Feb 77 p 121

ABSTRACT: In Western medicine, carbuncles are treated primarily with antibiotics, with extensive sectioning and draining. The result is often unsatisfactory. In recent years, 14 cases of carbuncles were treated at the department with external application of Goose-plus pulvis and internal administration of heat-relieving and blood-activating Chinese traditional drugs. Carbuncles are often a complication of diabetes. With this treatment, the average healing time is 24.6 days. Goose-plus pulvis is made from roasted gull-nuts and goose manure. Drugs of internal administration are not specifically given.

AUTHOR: None

ORG: Industrial Public Health Group, Department of Public Health, T'ai-yuan Heavy Machinery Plant

TITLE: "Degreasing and Cleaning Agent Made of Waste Soda"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 p 121

ABSTRACT: This paper describe a hand soap for industrial workers made of 1 chin of sawdust, 1 chin of waste soda (containing 67.8% of sodium carbonate and 7.5% of sodium hydrogen carbonate,) 2 chin of clay, and a suitable amount of water. This 'native soap' does not develop foam but its degreasing power is very high. It is inexpensive, odorless, and nonirritating. The workers like it very much.

AUTHOR: None

ORG: Szechwan College of Medicine Hospital

TITLE: "Discussion of Clinical Pathology: The 40th Case -- Right Maxillary Tumor, Decalcification and Osteoporosis, Incomplete Kidney Function"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 2, 15 Feb 77 pp 122-126

ABSTRACT: The case of a primary hyperparathyroidism is described. The 30 year old married male had suffered from 'rheumatoid myocarditis' in 1970 and was hospitalized for 3 months. In 1971 'nephritis' and hypertension developed. He had been semi-disabled in spite of treatment with Chinese traditional and Western medicine. A maxillary tumor was discovered; he was hospitalized and surgery was performed. Fever, palpitation, shortness of breath, coughing, and obvious reduction of muscular tension of the lower limbs developed. The patient was transferred to the department of internal medicine. Lupus cells were not observed in the blood. Various antibiotics failed to improve his condition. The patient died. Hyperparathyroidism was not diagnosed until after his death. The clinical history and the pathological report are discussed.

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TITLE: "Report of One Case of Acute Leukemia With Multiple Bone Fracture"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 2, 15 Feb 77 p 126

ABSTRACT: The case history of a 7 year old boy is reported. He was hospitalized 3 July 1974 for having suffered from fever and pain in the lumbar region and lower limbs for 10 months. Tuberculosis of the lung and the lumbar vertebra was diagnosed but application of antituberculous drugs for nearly one month produced no improvement. The patient limped, then, he was unable to stand up. Acute leukemia was not diagnosed until bone marrow biopsy was taken on 7 August. Supportive treatment with hormone, tetracycline, etc. failed to improve his condition. The patient died 2 months later from massive hemorrhage of the digestive tract. Reasons for the delayed diagnosis in this case are discussed.

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